

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Jonathan D. HALDERMAN, et al.

Serial No.: 09/617,104

Group Art Unit: 2823

Filed: July 14, 2000

Examiner: William D. Coleman

For: METHOD AND APPARATUS FOR JET PRINTING A FLUX PATTERN SELECTIVELY ON FLIP-CHIP BUMPS



THE COMMISSIONER FOR PATENTS AND TRADEMARKS  
Washington, DC 20231

Dear Sir:

Transmitted herewith is an Amendment in the above identified application.

☒  
☐  
☐

No additional fee is required.

Applicant is entitled to small entity status under 37 CFR 1.27

Also attached:

The fee has been calculated as shown below:

	NO. OF CLAIMS	HIGHEST PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	13	20	0	\$18.00 =	\$0.00
Independent Claims	3	3	0	\$84.00 =	\$0.00
Multiple claims newly presented					\$0.00
Fee for extension of time					\$0.00
					\$0.00
Total of Above Calculations					\$0.00

☒ Please charge my Deposit Account No. 500417 in the amount of \$0.00. An additional copy of this transmittal sheet is submitted herewith.

☒ The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment, to Deposit Account No. 500417, including any filing fees under 37 CFR 1.16 for presentation of extra claims and any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

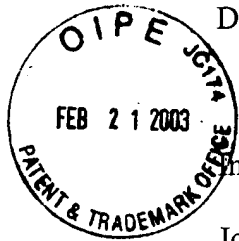
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Docket No.: 52352-507



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AMENDMENT

Commissioner for Patents  
Washington, DC 20231

Sir:

The following amendments and remarks are respectfully submitted in response to the  
Official Action dated November 21, 2002.

**IN THE CLAIMS:**

A clean version of the claims as amended appears below.

7. An apparatus for depositing flux on a semiconductor chip, the apparatus comprising:  
a support for positioning the semiconductor chip at a predetermined location for  
depositing flux, the semiconductor chip having a plurality of flip-chip bumps arranged on its  
surface; and

a jet printing head for printing a flux pattern, on the flip-chip bumps, the flux pattern  
substantially identical to an arrangement pattern of the plurality of flip-chip bumps on the  
semiconductor chip, such that the flux is deposited substantially only on the flip-chip bumps

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